



LOW POWER CONSUMPTION

Oil needs a pipeline. When Oil is being produced in remote areas, the pipeline becomes even more critical. The Viatran Low Power Pressure Transducer is the result of 50 years in the Oil and Gas arena.

RUGGED CONSTRUCTION

All welded construction and stainless steel surfaces make the LP770 ideal for corrosive, remote environments. The O-Ring free design ensures reliability in corrosive media. Viatran's X70 FM approved labeled units meet NEC/API Dual Seal requirements. For the most corrosive environments, Hastelloy, Inconel, and 316 SS wetted parts are also available.

OVERPRESSURE PROTECTION

The Model LP770 features bonded foil strain gage sensors. The over pressure protection in this technology helps to eliminate damage to the sensors when they are exposed to transient pressure spikes. Viatran also offers isolation diaphragms and oil fills or specific application requirements.

PRESSURE MEASUREMENT SOLUTIONS

This Viatran family of low power products brings the same rugged design you have come to expect from Viatran pressure measurement solutions.

In the middle of the desert, in the arctic, wherever power is in short supply, but accuracy and reliability can't be, a Viatran Model LP770 will be there.

OUR COMMITMENT TO QUALITY

The "LP770" design will perform and maintain on site durability in the most severe applications. To satisfy your unique application requirements, Viatran will also modify our standard products to meet your needs.

Viatran's vision is to be your fastest, easiest and most trusted solution. Call us today to explore the solutions we have to offer.



1.800.688.0030

Your local applications specialist:

FEATURES

- <1.5 mA current consumption
- All Stainless Steel Construction
- Small size — 1.5" diameter
- Exotic wetted materials available
- Watertight/submersible design
- 1-5 Volt output
- FM, ATEX, and CSA, approvals available

TYPICAL APPLICATIONS

- Solar Power, Battery Power
- Offshore Oil Rigs
- Gas Compressors
- RTUs
- Natural Gas Pipelines



PERFORMANCE

Accuracy (RSS)

(BFSL Linearity, Hysteresis, Repeatability)

Linearity (Best Fit Straight Line)

Full Scale Pressure Range	0-100 thru 0-100K PSIS (0-6.89 thru 0-6894 bar)
0-300 PSI thru 0-15K PSI Ranges	$\pm 0.20\%$ FSO ($\pm 0.15\%$ FSO improved with "DN" option)
< 0-300 PSI or > 0-15K PSI Ranges	$\pm 0.25\%$ FSO
0-300 PSI thru 0-15K PSI Ranges	$\pm 0.10\%$ FSO (BFSL), Typical
< 0-300 PSI or > 0-15K PSI Ranges	$\pm 0.25\%$ FSO (BFSL), Typical
Hysteresis	$< \pm 0.05\%$ FSO, Typical
Repeatability	$< \pm 0.05\%$ FSO, Typical
Full Scale Output (FSO)	4 Vdc
Zero and Span Balance	$\pm 1\%$ FSO
Resolution.....	Infinite
Long Term Stability	$\leq \pm 0.25\%$ FSO per year
Response Time (Mechanical and Electrical Combined)	< 5 mSec to reach 90% FSO
Temperature Effect on Zero	$\leq \pm 1\%$ FSO per 100°F (37°C)
Temperature Effect on Span	$\leq \pm 1\%$ FSO per 100°F (37°C)
Compensated Temperature.....	70°F to 170°F (21°C to 76°C)
Operating Temperature.....	-40°F to 190°F (-40°C to 87°C)
Storage Temperature Limit	-65°F to 250°F (-53°C to 121°C)

ELECTRICAL

Supply Voltage.....	7 to 24 Vdc
Power Supply Regulation Effect.....	$\leq \pm 0.003\%$ FSO per Volt over supply voltage range
Output Signal	1 - 5 Vdc
Current Consumption	< 1.5 mA
Load Impedance	50K Ohms minimum
Bridge Impedance	5,000 Ohms nominal
Circuit Protection.....	Varistor protected across the input leads for surges above 40 V and currents to 250 Amps peak with a pulse width of 20 μ Secs. Reverse polarity protected.
Insulation Resistance.....	> 200 MegOhms to case ground
RFI / EMI Suppression.....	$>$ Negligible effect to 500 Mhz at 5 watts direct contact
Electrical Connection.....	1/2" NPT (M), 18 AWG wire, 72"

- Red** +Power
- Black** -Power/- Signal
- Green** Case Ground
- White** +Signal

MECHANICAL




Pressure Connection	0-50 thru 0-15K PSI	1/4" - 18 NPT Female (0-3.3 thru 0-1034 bar)
	0-20K thru 0-50K PSI	1/4" F250-C High Pressure Tube (0-1378 thru 0-3447 bar)
	0-60K thru 0-100K PSI	5/16" F312C High Pressure Tube (0-4136) thru 0-6894 bar)
Proof Pressure	0-100 thru 0-15K PSI	1.5 times FSPR or 20K PSI (1378 bar), (0-6.8 thru 0-1034 bar) whichever is less
	0-20K thru 0-100K PSI	1.2 times FSPR (0-1378 thru 0-6894 bar)
Burst Pressure	0-100 thru 0-15K PSI	≥ 2.3 to 5 times FSPR dependent on (0-6.8 thru 0-10342 bar) sensor
	0-20K thru 0-100K PSI	≥ 1.5 times FSPR or 125K PSI (8618 bar) (0-1378 thru 0-6894 bar) whichever is less
Mounting.....	Supported by process piping or optional mounting bracket	

Model LP 770

MATERIALS OF CONSTRUCTION

Enclosure	0-100 thru 0-15K PSI.....15-5 PH and 316 stainless steel (0-6.8 thru 0-1034 bar)
	0-20K thru 0-100K PSI..... 316 SST and PH 13-8 Mo SST (0-1378 thru 0-6894 bar)
Wetted Parts	0-100 thru 0-15K PSI.....15-5 PH stainless steel (0-6.8 thru 0-1034 bar)
	0-20K thru 0-100K PSI..... PH 13-8 Mo SST (0-1378 thru 0-6904 bar)
	Shock Limitation 100 G's
	Weight 24 oz. (0.680 kilograms)
	Identification..... Laser etched onto body
	Enclosure Classification NEMA 4x

CERTIFICATIONS (CONSULT FACTORY FOR AVAILABLE OPTIONS)

USA	Intrinsic Safety: Class I, II, III, Division 1, Groups A-G, Class I, Zone 0, AEx ia IIC, T4 at Ta=80°C, T5 at Ta=40°C, NEMA Type 4X Hazardous Locations Explosion Proof: Class I, II, III Division 1, Groups A-G, AEx d IIC, T5 at Ta=88°C NEMA 4X Hazardous Locations Non-Incendive: Class I, II, III Division 2, Groups A,B,C,D,F,G, Class I, Zone 2, Group IIC, T4 at Ta=80°C, T5 at Ta=40°C, NEMA Type 4X Hazardous Locations
CANADA	Intrinsic Safety: Ex ia IIC; Class I, Zone 0; Class I, II, III, Groups A-G; NEMA Type 4, T4 at Ta=80°C, T5 at Ta=40°C (570,870) Explosion Proof: Class I, II, III, Groups A-G Hazardous Locations (570, 870)
EUROPE	Intrinsic Safety:  II 1G, Ex ia IIC, -20°C, Ta <40°C Flameproof:  II 2 G Ex d IIC, T6 (-20°C ≤ Ta ≤ 40°C) Non-Incendive  II G Ex nA II, T4 Gc (-20°C ≤ Ta ≤ 80°C) (770/870) EMC Directive 2004/108/EC EN 61326-1:2006 PED Directive 97/23/EC

OPTIONS

Y()	Alternate pressure ports performance options
DF	Bleed port (10K PSI and below)
DG	Improved temperature compensation (<± 0.5% / 100 °F for zero/span)
DH	Special range
DM	Modified output (0-10 Vdc, 770 only)
DN	Improved Accuracy (±0.15% FSO)
DQ	Cleaning for oxygen service
EA	Special calibration run
JJ	Direct mount indicator with explosion proof housing
JS	Direct mount indicator
KG	CRN Registration (consult factory)
MR	Modified electrical damping (570)
NG	ATEX flameproof label
NH	Customer specified identification
NJ	CE label
NK	ATEX intrinsic safety label
NX	CSA intrinsic safety label
NY	FM explosion proof label
NZ	FM nonincendive label
PW	1/8 DIN digital indicator (consult factory)
QA	316 stainless steel wetted parts
QB	Inconel (X-750) wetted parts
QC	Hastelloy (C-276) wetted parts
TF	FM intrinsic safety label
YP	1/2" NPT (M) Pressure Port

Note: Application of some available options may affect standard performance. Consult your Viatran Representative for details.

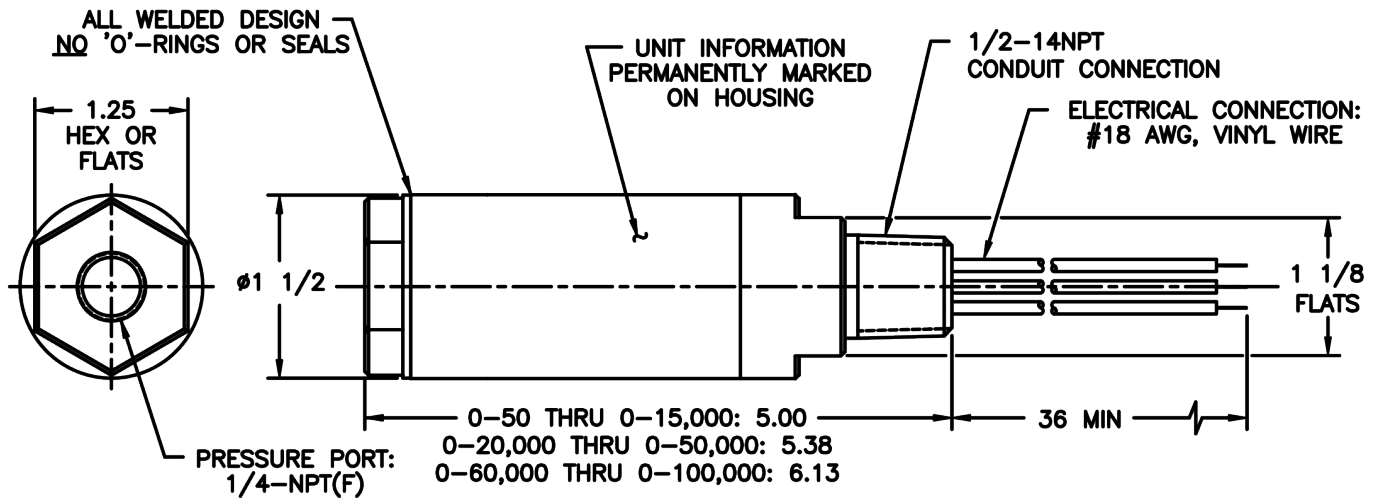


Model LP 770

ACCESSORIES

- Mounting bracket
- Conduit connection box
- Loop powered digital indicator

DIMENSIONAL DATA



NOTES: